

United States Department of Agriculture Natural Resources Conservation Service National Water and Climate Center

SNOTEL

Issue Area

Automated Snow/Climate Data Acquisition for Analysis of Local and Watershed Water Supplies

What's the Challenge?

- Providing high elevation snowpack information for streamflow forecasting, modeling and conservation planning assistance
- Assessing soil moisture balance for drought monitoring, mitigation, and crop productivity forecasting
- · Providing quality near real-time data to the National Weather Service for flood forecasting
- Providing quality near real-time data for climate monitoring
- · Providing climate information for Global Climate Change monitoring
- Lack of integrated snowpack information in the northern plains and eastern United States

What We Are Doing?

- Meeting with NRCS, cooperators and partners to determine needs and to provide technical assistance
- Bringing SNOTEL data up to certified quality
- Infusing SNOTEL with new technology
- Program-wide commitment to finalize all Network Standards and Specifications
- Improving and expanding coverage of NRCS's meteor burst communications capability
- Operating 650 remote SNOTEL sites in the western United States and Alaska
- Submitted FY2000 budget initiative for a National Snow Data Management Network

Status

- Working with customers and partners to better meet their needs
- Installing new cooperator funded sites
- Developing new snow water equivalent sensors to monitor snowpack
- Testing all hardware and software for Year 2000 compliance
- Data quality improvement under cooperative agreements
- Looking at requirements for the next generation SNOTEL remote site

What's Left?

- Provide assistance to states upon request
- Complete revision of program standards and specifications
- · Complete developmental work on new SWE sensor and begin implementation process
- Provide assistance to states upon request
- Provide new climate analysis and water supply forecasting (will require additional funding, FTE's, and about 200 additional SNOTEL remote sites)
- Implement the National Snow Data Management Network